

*Ephedra torreyana* – *Achnatherum hymenoides* Hummock Shrubland

MAP CLASS	Mormon Tea Cinder Dune Shrubland
COMMON NAME	Torrey's Joint-fir – Indian Ricegrass Hummock Shrubland
PHYSIOGNOMIC CLASS	Shrubland (III)
PHYSIOGNOMIC SUBCLASS	Evergreen shrubland (III.A)
PHYSIOGNOMIC GROUP	Extremely xeromorphic evergreen shrubland (III.A.5)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (III.A.5.N)
FORMATION	Broad-leaved and microphyllous evergreen extremely xeromorphic subdesert shrubland (III.A.5.N.a)
ALLIANCE	<i>Ephedra torreyana</i> Shrubland Alliance

CLASSIFICATION CONFIDENCE LEVEL Weak

USFS WETLAND SYSTEM Upland

RANGE

**Wupatki National Monument**

Torrey's Joint-fir – Indian Ricegrass Hummock Shrubland is an uncommon association that occurs specifically on cinder dunes in isolated areas within the park and the environs. Relevés were only located within Wupatki NM in the southeastern section of the park east of Peshlaki Springs.

ENVIRONMENTAL DESCRIPTION

**Wupatki National Monument**

Based on three relevés this association's elevation ranges from 4,839-4,872 ft (1,475-1,485 m) (average 4,856 ft/1,480 m) and it occurs on flat or low slopes from 0-5% (average 2%). This association occurs specifically on cinder dunes or hummocks with cinder substrate.

MOST ABUNDANT SPECIES

**Wupatki National Monument**

<u>Stratum</u>	<u>Species</u>
Shrub	<i>Ephedra torreyana</i>
Herbaceous	<i>Achnatherum hymenoides</i>

ASSOCIATED SPECIES

**Wupatki National Monument**

*Aristida purpurea*, *Eriogonum corymbosum*, *Fallugia paradoxa*, *Pleuraphis jamesii*

VEGETATION DESCRIPTION

**Wupatki National Monument**

Torrey's Joint-fir – Indian Ricegrass Hummock Shrubland total vegetation cover ranges from 21-25% (average 24%) with 13-24% (average 18%) absolute cover in the shrub layer and 1-11% (average 6%) absolute cover in the herbaceous layer. The total species diversity ranges from 6-9 species (average 7) within the 3 relevés sampled.

The shrub layer was dominated by *Ephedra torreyana* (10% absolute cover in all relevés). However, *Fallugia paradoxa* had higher cover (12.5% absolute cover) in one relevé and may co-dominate in these areas. The herbaceous layer was low to moderate with *Achnatherum hymenoides* occurring in all relevés and acting as an indicator species for this association with 1-5% absolute cover (average 3%).

CONSERVATION RANK G?

DATABASE CODE Cegl005802

**USGS-NPS Vegetation Mapping Program**  
**Wupatki National Monument**

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**MAP CLASSES**

The association Torrey's Joint-fir – Indian Ricegrass Hummock Shrubland is represented by map class Mormon Tea Cinder Dune Shrubland (map code 20).

The total area mapped within Wupatki NM is 343 ac (139 ha) within 17 polygons and the total area in the park environs is 744 ac (301 ha) within 59 polygons.

**COMMENTS**

**Wupatki National Monument**

The three representative relevés of this association were sampled in a limited area. Additional quantitative data of this association throughout its range may refine the species cover data.